

Notice of Allowability

Application No.

09/986,358

Examiner

John B. Strege

Applicant(s)

FURUKAWA, HISAO

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed 3/18/05.
2. ☒ The allowed claim(s) is/are 1-3,6,7,34-37,39,40,67 and 72-77.
3. ☒ The drawings filed on 08 November 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 2/23/05
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

✓
EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Justin Sobaje, Reg #56,252 on 6/3/05.

In the claims:

Cancel claim **8-33, 41-66, 68-71**.

This application is in condition for allowance except for the presence of claims 8-33, 41-66, 68-71 to inventions non-elected without traverse. Accordingly, claims 8-33, 41-66, 68-71 have been cancelled.

Response to Amendment

2. The amendment filed 3/18/05 was received and entered in full. Claims 4-5, and 38 have been cancelled, new claims 73-77 have been added, and claims 1-3,6-7,34-37,39-40,67,and 72-77 are pending.

In view of the Applicant's amendment and convincing arguments (see pages 20-23) all the prior art rejections have been withdrawn.

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Reasons for Allowance

3. Claims 1-3,6-7,34-37,39-40,67,and 72-77 are allowed.

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4. The following is an examiner's statement of reasons for allowance: None of the prior art disclose a stereo image processing apparatus subjecting first image data obtained from a first flying object during a first time period to stereo matching processing to generate first three dimensional data and subjecting second image data obtained from a second flying object during a second time period different from said first time period to stereo matching processing to generate second three-dimensional data comprising, correcting both the first and second three-dimensional data based on two-dimensional map data to provide modified three-dimensional data, and map data modifying means for modifying said map data based on differential information obtained from comparing the modified three-dimensional images to provide modified two-dimensional map data. As stated in the office action filed 12/22/04 Roux suggests data correction means for correcting aerial images using map data, but does not suggest map data modifying means to provide a modified two dimensional map data. Furthermore Roux does not disclose obtaining three-dimensional images at separate time periods and using the differential data obtained by comparing the images to update a two-dimensional map. Tanaka USPN 6,470,265 discloses comparing orthoimages obtained at separate time periods to obtain the change portion between them and using this information to correct a digital orthomap (see at least col. 12 lines 5-28). The orthoimages are obtained from stereoscopic photographs that are corrected for brightness and saturation in a map image processing station (col. 6 lines 20-37), however this is done in order to generate a map and therefore does not meet the limitation of using map data in order to modify the three-dimensional data. The

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orthoimages are compared at different time periods in order to correct a map, however the orthoimages are two-dimensional data and therefore the limitation of comparing first modified three-dimensional data with second modified three dimensional data is not met. Therefore neither Roux nor Tanaka disclose comparing the first and second modified three-dimensional data to correct a two-dimensional map. Furthermore there is no motivation given to combine Roux and Tanaka. Therefore the independent claims 1,34,67, and 73 are allowable. Claims 2-3,6-7,35-37,39-40,72, and 74-77 are allowable as being dependent on allowable claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact Information

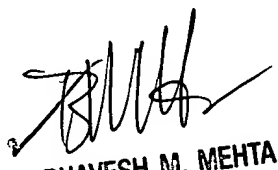
Any inquiry concerning this communication or earlier communications from the examiner should be directed to John B. Strege whose telephone number is (571) 272-7457. The examiner can normally be reached on Monday-Friday between the hours of 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on (571) 272-7453. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JS



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